

IN THE CLAIMS:

Claims 1-15 (canceled)

- 1 16. (currently amended) A semiconductor device having a semiconductor chip,
2 first electrodes formed on said semiconductor chip,
3 barrier metals formed on said first electrodes and having laminated structures, and
4 a plurality of second protruded electrodes, which serve as external connection terminals, formed
5 on said barrier metals, wherein said barrier metals comprising:
6 a lowermost conductive metal layer laminated on said first electrodes, said lowermost
7 conductive metal layer being made of a metal selected from the group consisting of titanium (Ti), chromium
8 (Cr) and molybdenum (Mo) and having a joining property with said first electrodes;
9 an intermediate conductive metal layer laminated on said lowermost conductive metal layer,
10 said intermediate conductive metal layer being made of nickel (Ni); and
11 an uppermost conductive metal layer laminated on said intermediate conductive metal layer,
12 said uppermost conductive metal layer being made of a material which easily alloys with the nickel of said
13 intermediate conductive metal layer and which has resistance to oxidation, said uppermost conductive metal
14 layer being made of a metal selected from the group consisting of platinum (Pt), palladium (Pd), silver (Ag)
15 and rhodium (Rh) or of an alloy containing a metal selected from the group consisting of gold (Au), platinum
16 (Pt), palladium (Pd), silver (Ag) and rhodium (Rh).

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17. (previously amended) A semiconductor device as claimed in claim 16, wherein the weight of said uppermost conductive metal layer is less than 2 weight % of the weight of the bump to be formed thereon.